

Amendments to the Specification:

Please replace the second paragraph on page 2 with the following paragraph:

The present invention provides a method and composition for attracting arthropods (e.g., mosquitoes) by using a volatile acid (e.g., a humidified volatile acid) in gaseous form. Such volatile acids have been found to be arthropod attractants and, when combined with carbon dioxide, provide greater attraction than carbon dioxide alone. The volatile acid precursor can be provided adjacent an arthropod trapping device and at least a portion of the attracted arthropods can be trapped. Alternatively, the humidified volatile acid precursor can be used in conjunction with a pesticide and the pesticide can be used to kill at least a portion of the attracted arthropods. Alternatively, carbon dioxide gas can be forced over an impregnate bed which may be, for example, zeolites impregnated with a volatile acid and/or and optionally water in a packed bed.

Please replace the first paragraph on page 4, with the following paragraph:

In accordance with the invention, arthropods are attracted through the use of a humidified volatile acid vapor. Preferably, the volatile acid is an acid such as hydrogen chloride, HBr, H<sub>2</sub>S, SO<sub>2</sub>, SO<sub>3</sub>, acetic acid or H<sub>3</sub>PO<sub>4</sub>.

Please replace the third paragraph on page 4 with the following paragraph:

The volatile acid precursor can be provided in particulate form (e.g., a powder), or can be impregnated in a porous carrier. Preferably, the porous carrier is an inert carrier in the form of carrier particles having pores, channels or the like located therein. In addition, the volatile acid precursor is preferably uniformly impregnated within the porous carrier. Suitable carriers include silica, alumina, zeolite crystals, pumice, diatomaceous earth, bentonite, or clay (e.g. aluminum silicate or kaolin). Preferably, the porous carrier includes diatomaceous earth or zeolite crystals. The volatile acid precursor can be provided in a gas permeable sachet (e.g. a TYVEK® sachet) or can be put into a packed flow through a column.

Please replace the last paragraph beginning on page 4 and ending on page 5, with the following paragraph:

In accordance with the invention, the volatized acid can be combined with carbon dioxide to enhance the ability of the volatized acid to attract arthropods. The carbon dioxide can be provided through the use of carbon dioxide canisters, through a combustion reaction (e.g. propane combustion), [[or]] by the sublimation of dry ice or use of yeast generators. Preferably, the carbon dioxide is produced by exposing a carbon dioxide precursor such as a carbonate, bicarbonate or sesquicarbonate to an acid. Suitable carbon dioxide precursors are described in related U.S. Application No 10/243,590 filed on September 13, 2002 and preferred carbon dioxide precursors include sodium carbonate and sodium bicarbonate. The carbon dioxide precursors can be provided as a powder or impregnated in a carrier. Suitable carriers and methods of producing impregnated carrier particles are described above and in U.S. Application No 10/243,590. The carbon dioxide precursor can be provided in a gas permeable sachet.

Please replace the third paragraph on page 5 with the following paragraph:

The volatized acid can also be produced from an acid having low volatility to attract mosquitoes in accordance with the invention. In this embodiment, a low volatility acid is combined with a salt of a volatile acid. The interaction of these materials produces a volatile acid such as hydrogen chloride. Suitable low volatility acids include weak organic acids such as L-lactic acid. Preferably, the low volatility acid is L-Lactic L-lactic acid and the salt is sodium chloride, KCl, LiCl, MgCl<sub>2</sub>, MgCl<sub>2</sub> or CaCl<sub>2</sub>. Suitable low volatility acids include weak organic acids such as L-lactic acid.

Please replace the third paragraph on page 6 with the following paragraph:

100 *Aedes aegypti* (AE) mosquitoes were placed into an olfactometer unit. For each test, the mosquitoes were exposed to two sets of stimuli for a collection period of 3 minutes. The mosquitoes could [[choose]] choose between the stimuli or not respond. The data is reported in Table 1.

Please replace the fourth paragraph on page 6 with the following paragraph:

For the first test, ferric chloride hexahydrate was impregnated on ~~diatemaceous~~ diatomaceous earth and was activated with a moisture containing substance to form the first stimulus center. This material released water and trace amounts of hydrochloric acid, HCl. The second stimulus center in this test was a blank (no chemical stimulus).

Please replace the last paragraph on page 6 with the following paragraph:

For the third test, ferric chloride hexahydrate was impregnated on ~~diatemaceous~~ diatomaceous earth and was activated with a moisture containing substance to form the first stimulus center. This material released water and trace amounts of hydrochloric acid, HCl. The second stimulus center was dry carbon dioxide fed at 5 ml/min from a standard gas cylinder. The data shows a higher percentage of mosquitoes responded to the stimulus provided by the activated ferric chloride material. In comparison with carbon dioxide, the ferric chloride impregnate attracted substantially more mosquitoes.

Please replace the first paragraph on page 8 with the following paragraph:

As with Example 1, 100 AE mosquitoes were placed into an olfactometer unit. For each test, the mosquitoes were exposed to two sets of stimuli for a collection period of 3 minutes. The mosquitoes could [[chose]] choose between the stimuli or not respond. The data is reported in Table 2.

Please replace the third paragraph on page 8 with the following paragraph:

For the second test, ferric chloride hexahydrate impregnated on ~~diatemaceous~~ diatomaceous earth and sodium bicarbonate powder were contained in a sachet. The sachet was activated by combining the two powders stimulating a chemical reaction that released carbon dioxide, water and trace amounts of hydrochloric acid, forming the first stimulus center. The reaction produces by-product water that stimulates hydrochloric acid production from the ferric chloride. The sachet was designed to release CO<sub>2</sub> at a rate of 5 ml/min over the collection period. The second stimulus center in this test was a blank (no chemical stimulus).

Please replace the fourth paragraph on page 8 with the following paragraph:

For the third test, a sachet containing ferric chloride hexahydrate impregnated on diatemaceous diatomaceous earth and sodium bicarbonate powder, similar to the sachet used in the second test, was activated with a moisture-containing substance to release carbon dioxide water and trace amounts of hydrochloric acid, forming the first stimulus center. The reaction produces by-product water that stimulates hydrochloric acid production from the ferric chloride. The second stimulus center was carbon dioxide fed at 5 ml/min from a standard gas cylinder.

Please replace the first paragraph on page 10 with the following paragraph:

As with Examples 1 and 2, 100 AE mosquitoes were placed into an olfactometer unit. For each test, the mosquitoes were exposed to two sets of stimuli for a collection period of 3 minutes. The mosquitoes could [[chose]] choose between the stimuli or not respond. The data is reported in Table 3.

Please replace the second paragraph on page 10 with the following paragraph:

For the first test, ferric chloride hexahydrate impregnated on a diatemaceous diatomaceous earth was activated with a moisture containing substance to form the first stimulus center. This material released water and trace amounts of hydrochloric acid, HCl. The second stimulus center in this test was a blank (no chemical stimulus).

Please replace the third paragraph on page 10 with the following paragraph:

For the second test, a sachet containing ferric chloride hexahydrate impregnated diatemaceous diatomaceous earth and sodium bicarbonate powder was used, similar to the sachet used in Example 2. The sachet was activated by combining the two powders stimulating a chemical reaction that released carbon dioxide, water and trace amounts of hydrochloric acid, forming the first stimulus center. The reaction produces by-product water that stimulates hydrochloric acid production from the ferric chloride. The sachet was designed to release carbon dioxide at a rate of 5 ml/min. The second stimulus center in this test was a blank.

Please replace the fourth paragraph on page 10 with the following paragraph:

For the third test, a sachet identical to that used in the second test and containing ferric chloride hexahydrate impregnated on ~~diatomaceous~~ diatomaceous earth and sodium bicarbonate powder was activated, forming the first stimulus center. The second stimulus center in this test was ferric chloride hexahydrate impregnated on ~~diatomaceous~~ diatomaceous earth and activated with a moisture containing substance to form hydrogen chloride, as in Example 1.

Please replace the fifth paragraph on page 10 with the following paragraph:

For the fourth test, a sachet containing ferric chloride hexahydrate impregnated on ~~diatomaceous~~ diatomaceous earth and sodium bicarbonate powder, identical to that in the first test, was activated to form the first stimulus center. The second stimulus center had two components. The first component was activated ferric chloride hexahydrate impregnated on ~~diatomaceous~~ diatomaceous earth, as in Example 1. The second component of the second stimulus center was dry carbon dioxide fed at 5 ml/min from a standard gas cylinder.

Please replace the third paragraph on page 12 with the following paragraph:

For the first test, the first stimulus center received CO<sub>2</sub> that had flowed through a bed of ferric chloride hexahydrate [[on]] impregnated in a porous carrier. The second stimulus center was blank (no chemical stimulus).

Please replace the fifth paragraph on page 12 with the following paragraph:

For the third test, the first stimulus center received CO<sub>2</sub> that had flowed through a bed of water [[on]] impregnated in a porous carrier. The second stimulus center was blank (no chemical stimulus).

Please replace the sixth paragraph on page 12 with the following paragraph:

For the fourth test, the first stimulus center received CO<sub>2</sub> that had flowed through a bed of HCl solution on porous carrier. The second stimulus center received CO<sub>2</sub> that had flowed through a bed of water [[on]] impregnated in a porous carrier.

Please replace the seventh paragraph on page 12 with the following paragraph:

For the fifth test, the first stimulus center received CO<sub>2</sub> that had flowed through a bed of ferric chloride hexahydrate [[on]] impregnated in a porous carrier. The second stimulus center received CO<sub>2</sub> that had flowed through a bed of water [[on]] impregnated in a porous carrier.